MODIS TT Meeting
Thursday, March 28, 2002
Building 33, E125
3:00 P.M.

Vince Salomonson chaired the meeting. Present were Gary Alcott, Jack Xiong, Ed Masuoka, Bill Barnes, Wayne Esaias, Dorothy Hall, Chris Justice, and Bruce Ramsay, with Rebecca Lindsey taking the minutes.

1.0 Upcoming Meeting

- AGU, Spring, May 28-Jun 1, Washington, D.C.
- AMS, Atmospheric Radiation and Atmospheric Physics, first week of June, Odgen, Utah.
- MODIS Outreach Workshop on Land Cover Variables, June 3-4, University of Maryland, College Park.
- IGARSS 2002, June 24-28, 2002 in Toronto (abstract deadline past)
- MODIS Outreach Workshop on MODIS Vegetation Variables (VI/LAI/FPAR/NPP), July 15-19th 2002, University of Montana, Missoula, MT
- MODIS Science Team Meeting, Tentative, July 22-24, 2002
- Remote Sensing of the Earth's Environment from Terra, a workshop at the International Summer School on Atmospheric and Oceanic Sciences, August 25-30, 2002, L'Aquila Italy
- 34TH COSPAR Scientific Assembly, October 10-19, 2002, in Houston, TX, (abstracts due 1 May)
- MODIS Outreach Workshop on Land Surface Radiation Products, October 24-25, 2002, Boston

2.0 Meeting Minutes

Ramsay reported that NOAA/NESDIS folks from the Office of Satellite Data Processing and Distribution and the Office or Research and Applications have a meeting set up with Justice to discuss the potential operationalization of the MODIS Land Rapid Response System within NESDIS. They also plan to discuss potential NOAA participation in the Global Observation of Forest Cover (GOFC), which is part of the Global Terrestrial Observing System (GTOS), as well as a development of a funding proposal for whatever course of action is decided upon on at the 10 April 2002 meeting.

Salomonson reported that he had attended the TerraScan conference in San Diego, and he was impressed with the potential for use of MODIS data with Direct Broadcast receiving stations. The Navy, as a major example of an organization that wants to use MODIS heavily, needs data within 20 minutes. Salomonson did describe to the attendees the NOAA bent-pipe mechanism. Justice said that the Rapid Response System has interactions with Navy people at Monterey for fire detection.

Salomonson said that progress is being made on releasing software for Direct Broadcast. He talked with George Riggs about potential copyrighted code in MOD10C1. Barnes said he imagined that MODIS would be a nice precursor to NPOES for the DOD. Justice

added that they had received a request from EROS data center, which wants to develop a rapid response system.

Salomonson reported that with respect to instrument status, MODIS doors should re-open Thursday, March 28, between 2245 and 2307 GMT. [Note added in proof: Doors opened at 22:53 GMT.] He expressed his thanks to everyone involved, including Santa Barbara Remote Sensing, in getting MODIS back online. Barnes said MCST had collected back-side nadir-door data, and planned a few solar calibration tests as well.

Barnes said that another inclination burn is scheduled on April 2. Steps have been taken to ensure that if MODIS does go into safe mode again, FOT won't turn off the formatter. The next thing they plan to do is the patches for handling the formatter resets into EEPROM memory, so that if the formatter ever did go off, it would load patches from memory automatically. Barnes said Space News had contacted him, and he told them MODIS was fixed.

Salomonson reported that Bill Rossow is interested in the L1B subsampled product for comparison with ISCCP. He understood that it would be L1 forward only, because we can't provide the L1B subset for past days until we reprocess again. Alcott will look at whether or not the 1 km that is being staged for the Oceans reprocessing could be used for generating the subset, but even if it could, it would be Collection 3 data. Salomonson asked that Alcott, et al. look hard at seeing if this product can't be produced during the oceans reprocessing.

Salomonson described a software tool for visualizing MODIS data called HDFLook_MODIS that was developed by Louis Gonzales. He had a poster-size L1B mosaic with a simple atmospheric correction to demonstrate the product. The tool is self-contained (i.e. doesn't require commercial software), and can be downloaded by users. The global image presented took about 12 hours to do, but that is an extreme use of the tool. The tool handles many Land, Ocean, and Atmosphere products, and has spatial subsetting, remapping, reprojection, mosaic, and image analysis capabilities.

Salomonson said he wanted to clarify and emphasize the importance of having User Guides for the products along with current ATBDs. The user guides are important in conjunction with the CD/ftp-sampler to be produced, but also to help data product users in general. Johnston is putting together a list of user guides she has found online and what Johnston is putting together a list of user guides she has found online and what the dates on them are. Justice reported that he thought Vermote was on the verge of having the CD/ftp site ready.

Masuoka reported that he had met with Jeff Privette, and they have set up a system that lets them compare simulated NPP (Raytheon) algorithms to MODIS algorithms. They went through what it would take to generate the simulated scenes, with respect to power needed and other things. They are sizing the system to run L2 MODIS. They first have to generate the simulated data, which will start from physics of ground cover and build up to top of atmosphere. Then they will run the algorithms on the simulated data.

Salomonson told Masuoka that Mark Schoeberl wants to develop some black and white images of all bands to show things change with bands. Nazmi El Saleous will work up something, and probably put them into TIF so that Schoeberl could enhance them as he sees fit for presentations. He needs these early next week.

Barnes reported that MCST had delivered version 4.0 L1B s/w to SDST. However, the new LUTS that implement the L1B changes won't be used in the forward stream until Oceans approves. The code and new LUTs will be sent to Miami for review.

Salomonson reported that the earliest Aqua will launch is the 24th of April. They are still worried about batteries. If those have to be replaced, it will probably be 6-8 weeks delayed. [Note added in proof: New launch date is April 26, 2002.]

Johnston asked Salomonson about a letter he was to draft to the science team regarding the schedule and criteria for validated products. She thought that with respect to the letter, we ought to begin thinking about the agenda for the science team meeting as it relates to getting updates on the status of validated products. Justice said he was thinking the emphasis in the meeting should be on Aqua early results. Salomonson agreed that to a first order that would be a good plan. Johnston indicated that she had been discussing with Jeff Morisette and Justice about the plan for assessing the quality of the Land products. They plan to collect results and think about error bars, etc. it would be good to have these results collected in time to be discussed at the Science Team Meeting.

Salomonson encouraged those present to begin thinking about what to do about the dead detectors in Band 6 on Aqua. Barnes said that the dead detectors are separated enough so that in most cases they can do a four by four matrix and get at least one good pixel at 1 km. There is one case where there are two side-by-side dead detectors, and there will be a stripe. But we will have some values at 1 km.

Alcott reported that the one problem ongoing at the DAAC is local granule ID corruption caused by a library that was delivered for install of PGE01. The lesson there is not to upgrade PGEs at same time as upgrade of system because then we can't back out. They are manually correcting the impacted granules, which occur in the first hour of each day. He believes it affects LST products in MODAPS.

Esaias reported that the oceans reprocessing would begin no later than May 26, and likely in mid-May. It appears that one limiting factor will be ESDTs. They have an Oceans test on April 11th to test output-ingest rates back into the DAAC.

Masuoka reported that he had met with Stan Scott about the MODIS Interface Control Document (ICD) Dolly Perkin's resource allocation numbers enable us to go forward and are based on the SWGD allocation. The Project is willing to sign that, but they want to change the performance baseline for the system and the ICD at the same time. Johnston asked Masuoka to send her the most recent draft of the SWGD report.

Hall reported that the last few times that she has ordered data it has come though fast using EDG. Alcott replied that the new ECS version has produced a decrease in the order failure rate by a quarter or so. Johnston asked if Alcott knew when the EDG upgrade was planned. Alcott would look into that.

Esaias told Masuoka that they he has been hearing good things about MODAPS' ordering system. The team did suggest using the product names instead of just product 1, 2, etc. People are happy with DAAC processing and distribution of Oceans data. Performance has picked up, and the subsetting capability is available. People are pleased with that.

Esaias said he had talked to Diana Cox about code release. She says there has been no dialogue between the University of Miami and NASA/Goddard Patent Office since October. Esaias thought that we could go ahead and release to GLI since the current agreement says it doesn't supercede any previous agreements between NASA and anyone else, and we agreed to send the code to GLI. In the case of software release for Direct Broadcast Salomonson said he would call for another meeting of the principals involved to assess progress, status, and schedules for completion. He encouraged Esaias to locate the agreement with GLI. If the agreement looks OK, we should act appropriately.

Esaias reported that Chris Brown, who heads the process of algorithm review at NOAA, reported that they have a beta website for "Coast watch" that makes use of bent pipe MODIS data.. He wants to have a meeting to get NASA approval on the product being generated by their system.

3.0 Action Items

3.1 Discipline leads to meet to resolve the issue of beta-release code and science-quality code, and what we need to say about it.
Status: Open.
3.2 Technical team to discuss further the issue of predicted ephemeris data and how to improve it.
Status: Open.